

We Claim:

1. A closure apparatus, comprising:

a closure body including a first end and a second end and an opening on a sidewall of said closure body; said second end including a fitment connectable to a fluid source;

a closure valve rotatably connected with said closure body in a fluid tight seal; said closure valve including a first end and a second end, and an opening on a sidewall of said closure valve; said first end including a handle;

said openings of said closure body and said closure valve corresponding with each other in an open position; said openings being respectively blocked by said sidewalls in a closed position, said handle being capable of actuating said closure apparatus into said open and closed positions; and

said closure valve being removable from said closure body enabling filling of said fluid source through said closure body.

2. The closure apparatus according to claim 1, wherein said closure body and said closure valve being in an in-line orientation enabling in-line filling of said fluid source when said closure valve is removed from said closure body.

3. The closure apparatus according to claim 1, wherein said fitment is a flange forming an integral part of said fluid source, said closure apparatus forming a one piece integral structure with said fluid source, and said closure apparatus alone being self dispensing from said fluid source.

4. The closure apparatus according to claim 3, wherein said fitment is a weld flange.

5. The closure apparatus according to claim 1, wherein said first end of said closure body including a portion and said closure valve including a stop portion, said stop member and said stop portion communicating to provide proper rotation between said closure body and said closure valve.

6. The closure apparatus according to claim 1, wherein said closure body including a tear away seal covering said opening of said closure body before use.

7. A coupler apparatus, comprising:

5 a housing; said housing including a first end and a second end, and an opening on a sidewall of said housing;

a coupler valve rotatably connected with said housing in a fluid tight seal; said coupler valve including a first end and a second end, and an opening on a sidewall of said coupler valve;

10 said first end including a handle for rotating said coupler valve relative to said housing to enable an open position and a closed position of said coupler apparatus; said second end being operatively connectable to a piece of dispensing valve equipment;

said openings corresponding with each other in said open position and said openings being blocked by said sidewalls in said closed position; and

15 a locking member operatively connected to said housing; said locking member maintaining said coupler apparatus in said closed position when said coupler apparatus is in an uncoupled state, and said locking member being releasable when said coupler apparatus is coupled to said piece of dispensing valve equipment.

20 8. The coupler apparatus according to claim 7, wherein said opening of said housing being suitable for connection to a fluid line.

9. The coupler apparatus according to claim 7, wherein said locking member being biased into a normally closed position when said coupler apparatus is in said uncoupled state.

25 10. The coupler apparatus according to claim 9, wherein said locking member is spring biased.

11. The coupler apparatus according to claim 7, wherein said locking member including a protrusion; said protrusion being contactable with a piece of fluid dispensing equipment so as to release said locking member.

5 12. The coupler apparatus according to claim 7, wherein said second end of said housing including at least one stop and said coupler valve including at least one stop; said stops of said housing and coupler valve communicating to provide proper rotation between said housing and said coupler valve.

10 13. The coupler apparatus according to claim 7, wherein said piece of dispensing valve equipment including a closure having a fitment connectable to a fluid source.

14. A fluid dispensing valve assembly, comprising:

15 a closure including a closure body having a first end and a second end and an opening on a sidewall of said closure body; said second end having a fitment connectable to a fluid source; a closure valve rotatably connected with said closure body in a fluid tight seal; said closure valve having a first end and a second end, and an opening on a sidewall of said closure valve; and said closure valve being removable from said closure body enabling filling of said fluid source through said closure body;

20 a coupler rotatably connected with said closure; said coupler including a housing having a first end and a second end; said housing having an opening on a sidewall of said housing; a coupler valve rotatably connected with said housing in a fluid tight seal; said coupler valve having a first end and a second end, and an opening on a sidewall of said coupler valve; said first end having a handle;

25 wherein said first end of said coupler valve including an interlock cooperating with an interlock of said first end of said closure valve; said interlocks being operatively connected with said handle of said coupler enabling said fluid dispensing valve assembly to be actuatable into an open position where said openings of said coupler and closure correspond with each other, and into a closed position where said openings of said
30 coupler and closure are blocked by said respective sidewalls of said coupler and closure.

15. The fluid dispensing valve assembly according to claim 14, wherein said closure body and said closure valve being in an in-line orientation enabling in-line filling of said fluid source when said closure valve is removed from said closure body.

5 16. The fluid dispensing valve assembly according to claim 14, wherein said fitment is a flange forming an integral part of said fluid source.

17. The fluid dispensing valve assembly according to claim 16, wherein said fitment is a weld flange.

10 18. The fluid dispensing valve assembly according to claim 14, wherein said first end of said closure body including a portion and said closure valve including a stop portion, said stop member and said stop portion communicating to provide proper rotation between said closure body and said closure valve.

15 19. The fluid dispensing valve assembly according to claim 14, wherein said closure body including a tear away seal covering said opening of said closure body before use.

20 20. The fluid dispensing valve assembly according to claim 14, wherein said housing including a locking member operatively connected with said housing; said locking member maintaining said coupler in closed position when said coupler is in an uncoupled state, and said locking member being releasable when said coupler is connected with said closure.

25 21. The fluid dispensing valve assembly according to claim 20, wherein said locking member being released by contacting a receiving area of said closure when said coupler and closure are connected.

30 22. The fluid dispensing valve assembly according to claim 21, wherein said receiving area being a activating ramp.

23. The fluid dispensing valve assembly according to claim 21, wherein said locking member including a protrusion; said protrusion being contactable with said receiving area to release said locking member.

5 24. The fluid dispensing valve assembly according to claim 20, wherein said locking member being biased by a biasing member into a normally closed position when said coupler is in said uncoupled state.

10 25. The fluid dispensing valve assembly according to claim 24, wherein said biasing member is a spring.

15 26. The fluid dispensing valve assembly according to claim 14, wherein said second end of said closure body including an interlock and said second end of said housing including an interlock; said interlocks cooperatively engaged to prevent said coupler and said closure from pulling apart.

20 27. The fluid dispensing valve assembly according to claim 14, wherein said interlock of said first end of said coupler valve is an internal space of said handle; said internal space cooperative with said interlock of said first end of said closure valve.

28. The fluid dispensing valve assembly according to claim 20, wherein said biasing member is biased against a shroud; said shroud including a surface for biasing support of said biasing member and substantially covers said coupler and closure.

25 29. The fluid dispensing valve assembly according to claim 28, wherein said shroud including a handle operatively connected and rotatable with said shroud; said handle being operatively connected with said handle of said coupler valve and said interlocks at said first ends of said coupler valve and closure valve, such that said handle of said shroud enabling said fluid dispensing valve assembly to be actuatable into said open and
30 closed positions.